# MMX-4X4CAT-70M Q-SYS Plugin Guide

For Q-SYS Designer · Plugin version 1.0.5

**The KanexPro MMX-4X4CAT-70M plugin lets a Q-SYS system control the MMX-4X4CAT-70M over the network.** It talks to the unit's own control port (TCP 8000): no other KanexPro software and no RS-232 cable are needed. Every control has a pin, so it can be wired to UCI buttons, logic and scripts like any Q-SYS control, and the plugin reads the unit back so changes made on its front panel, remote or web page show in Q-SYS.

**Before you start —** the Q-SYS Core must reach the MMX-4X4CAT-70M on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

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## 1. WHAT THE PLUGIN DOES

It controls: source, HDMI picture, HDBaseT picture, standby, presets, save, scaler, EDID, HDBaseT compression (DSC), sound back from the screen (ARC), clear a preset, lock the front panel, beep.

It reads back: signal, connected, HDBaseT receiver, power, fan running, IP mode, address, subnet mask, gateway.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

## 2. BEFORE YOU START

- ✓ Q-SYS Designer on a Windows computer, and a Q-SYS Core.
- ✓ The MMX-4X4CAT-70M on the same network as the Core, or routed to it, with TCP port 8000 open between them.
- ✓ The unit's IP address (front panel or its own web page).

## 3. INSTALL THE PLUGIN

1. Download **KanexPro-MMX-4X4CAT-70M-QSYS-1.0.5.zip** from the MMX-4X4CAT-70M page on kanexpro.com (Resources) and unzip it.
2. Copy `KanexPro-MMX-4X4CAT-70M.qplug` into `Documents\QSC\Q-Sys Designer\Plugins` on the Q-SYS Designer computer, or drag the file onto Designer's window.
3. Restart Q-SYS Designer. The plugin appears in Schematic Elements under **Plugins > KanexPro**.
4. Drag it into the design, select it and set its properties (section 4).
5. Save the design to the Core and run it. The plugin connects by itself and shows its state on its Status control.

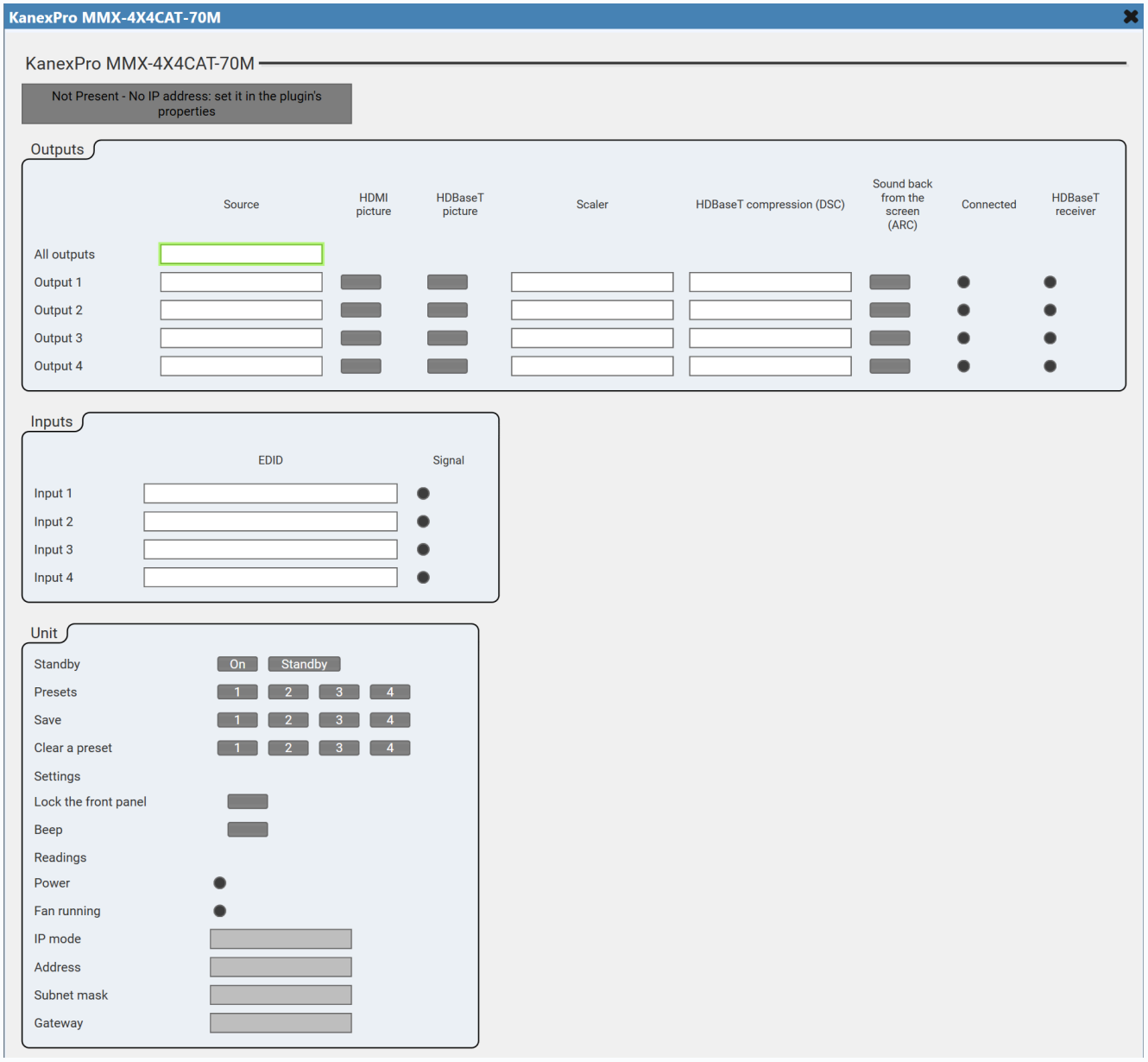
**One plugin per unit —** for two MMX-4X4CAT-70M units, add the plugin twice and give each its own IP address.

## 4. PROPERTIES

| PLUGIN PROPERTIES | |
|---|---|
| **IP Address** | The MMX-4X4CAT-70M's address on the control network. Empty by default. |
| **Port** | 8000 (TCP), the unit's control port. Change it only if the unit's own web page was set to another port. |

| | |
|---|---|
| **Poll Interval** | How often, in seconds, the plugin reads the unit back. Default 10; 0 reads it only after a change from Q-SYS. |

## 5. THE PLUGIN IN Q-SYS DESIGNER




The MMX-4X4CAT-70M plugin's control panel in Q-SYS Designer

## 6. CONTROLS

64 controls. Where a control is repeated for each input or output, it is listed once.

| # | Control | Where | What it does |
|---|---|---|---|
| 0 | **Status** | the plugin | Shows whether the plugin is connected to the unit, and why not (section 7). |
| 1 | **Source (all outputs)** | each output | Sends one input to every output at once. |
| 2 | **Source** | each output | Picks the input this output shows. |
| 3 | **HDMI picture** | each output | Turns the HDMI picture on or off on each output. |
| 4 | **HDBaseT picture** | each output | Turns the HDBaseT picture on or off on each output. |

| | | | |
|---|---|---|---|
| 5 | **Standby** | buttons 1 to 2 | On: turns the unit on. Standby: puts the unit in standby. Back in about 4 seconds with every setting as it was; HDBaseT receivers link again a few seconds later. |
| 6 | **Presets** | buttons 1 to 4 | Recalls that preset. |
| 7 | **Save** | buttons 1 to 4 | Saves the unit's current settings as that preset. |
| 8 | **Scaler** | each output | Sets the scaler on each output. Choices: Bypass; 4K to 1080p; Auto. |
| 9 | **EDID** | each input | Sets the EDID on each input. Choices: 1080p,Stereo Audio 2.0; 1080p,Dolby/DTS 5.1; 1080p,HD Audio 7.1; 1080i,Stereo Audio 2.0; 1080i,Dolby/DTS 5.1, and 26 more. |
| 10 | **HDBaseT compression (DSC)** | each output | Sets the HDBaseT compression (DSC) on each output. Choices: Mode 1 (default); Mode 2; Mode 3. Leave it on Mode 1 unless a screen at the far end of an HDBaseT cable flickers or drops out; then try Mode 2 or 3, and go back to Mode 1 if it does not help. |
| 11 | **Sound back from the screen (ARC)** | each output | Turns the sound back from the screen (ARC) on or off on each output. |
| 12 | **Clear a preset** | buttons 1 to 4 | Clears that preset. |
| 13 | **Lock the front panel** | the unit | Turns the lock the front panel on or off. |
| 14 | **Beep** | the unit | Turns the beep on or off. |
| 15 | **Signal** | each input | Lit when the unit reports signal on that input. |
| 16 | **Connected** | each output | Lit when the unit reports connected on that output. |
| 17 | **HDBaseT receiver** | each output | Lit when the unit reports HDBaseT receiver on that output. |
| 18 | **Power** | the unit | Lit when the unit reports power. |
| 19 | **Fan running** | the unit | Lit when the unit reports fan running. |
| 20 | **IP mode** | the unit | Shows the unit's IP mode. |
| 21 | **Address** | the unit | Shows the unit's address. |
| 22 | **Subnet mask** | the unit | Shows the unit's subnet mask. |
| 23 | **Gateway** | the unit | Shows the unit's gateway. |

## 7. STATUS

| STATUS CONTROL | |
|---|---|
| **OK (green)** | Connected to the unit and reading it back. |
| **Initializing (blue)** | Connecting. It tries again every few seconds by itself. |
| **Fault (red)** | Not connected, with the reason: the unit does not answer, or the connection was refused or closed. |
| **Compromised (orange)** | Connected, but the unit refused the last change. The text names it. The control returns to what the unit reports at the next read. |
| **Not Present (grey)** | No IP address is set in the plugin's properties. |

## 8. TROUBLESHOOTING

**The Status control shows Fault and it does not connect.**
Check the IP address: find the unit's address on its front panel or its own web page and compare it with the plugin's IP Address property. A unit on DHCP may have moved; give it a fixed address or a DHCP reservation.

**The address is right, but it still does not connect.**
Check the network path. The Core and the unit must reach each other: the same network or VLAN, or a route between them. From a computer on the Core's network, the unit's web page should open at its address.

**Could a firewall be blocking it?**

Yes. A firewall or switch ACL between the Core and the unit must allow TCP port 8000 to the unit. Also leave the Port property at 8000 unless the unit's own web page was set to another port.

**It connects, but a change does not happen.**
The Status control shows Compromised and names the command the unit refused. The unit may be in standby: turn it on first.

**Changes made on the unit do not show in Q-SYS.**
Set Poll Interval above 0. Changes made on the unit's front panel, remote or web page then show within that many seconds.